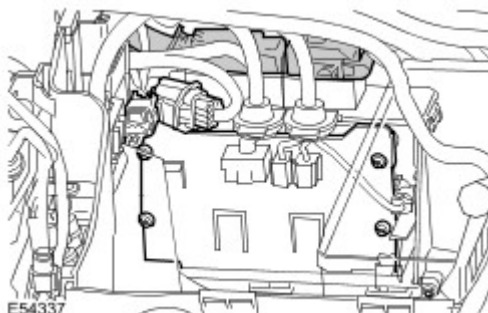


## Battery Junction Box (BJB) - 4.4L (86.70.55)

### Removal

#### All vehicles

- 1 . Disconnect the battery ground cable. For additional information, refer to [Specifications](#) (Section 414-00)
- 2 . Make the SRS system safe. For additional information, refer to [Standard Workshop Practices](#) (Section 100-00)
- 3 . Remove the engine cover. For additional information, refer to [Engine Cover - 4.4L \(12.30.50\)](#) (Section 501-05)
- 4 . Remove the radiator grille. For additional information, refer to [Radiator Grille \(76.55.03\)](#) (Section 501-08)
- 5 . Remove the air cleaner assembly. For additional information, refer to [Air Cleaner \(19.10.01\)](#) (Section 303-12)
- 6 . Remove the four-wheel drive control module. For additional information, refer to [Four-Wheel Drive \(4WD\) Control Module \(41.30.01\)](#) (Section 308-07)
- 7 . Remove the battery tray. For additional information, refer to [Battery Tray \(76.10.30\)](#) (Section 414-01)
- 8 . Remove the auxiliary battery tray. For additional information, refer to [Auxiliary Battery Tray \(76.10.31\)](#) (Section 414-01)
- 9 . Remove the ECM cover.
  - Disconnect 2 electrical connectors for access.
  - Disconnect the 2 ECM electrical connectors.
  - Remove the 4 Torx screws.



- 10 . Remove the ECM.
  - Remove the ECM top cover.



11. Remove the BJB cover.  
➤ Release the clip.

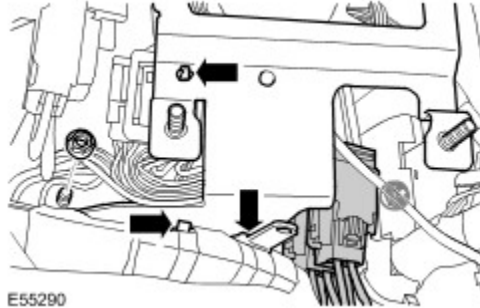
12. Disconnect the battery positive cable from the BJB.  
➤ Remove the nut.



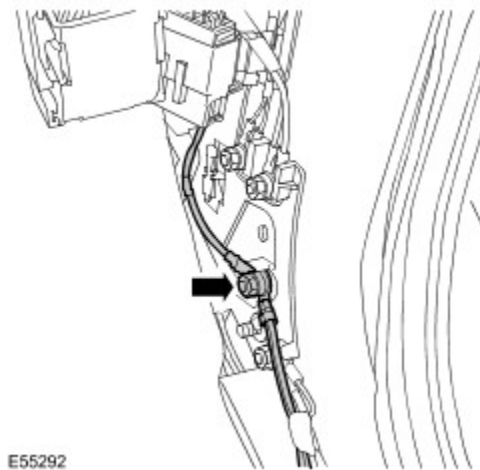
13. Remove both cowl side trim panels. For additional information, refer to [Cowl Side Trim Panel \(76.13.27\)](#) (Section 501-05)
14. Remove the CJB. For additional information, refer to [Central Junction Box \(CJB\) \(86.70.56\)](#) (Section 418-00)
15. Release the CJB bracket.  
➤ Release the 3 upper wiring harness clips.  
➤ Remove the 2 bolts.



- 16 . Remove the CJB bracket.
- Disconnect the 2 electrical connectors.
  - Release the 3 lower wiring harness clips.
  - Remove the 2 nuts.



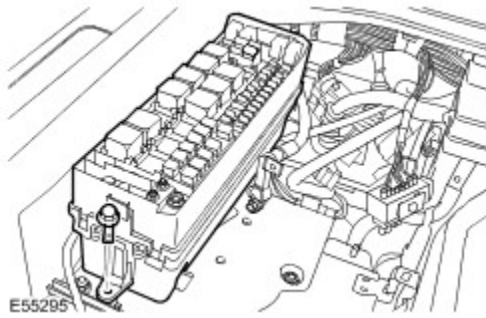
- 17 . Release the 2 ground cables from the lower A-pillar.
- Remove the nut.



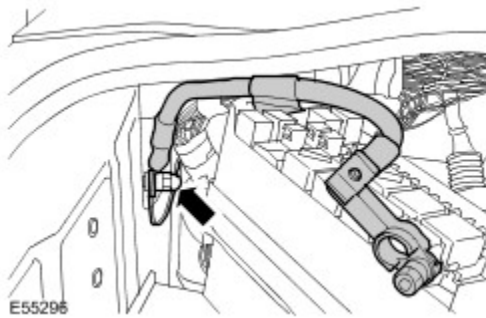
- 18 . Disconnect the heater motor electrical connector.



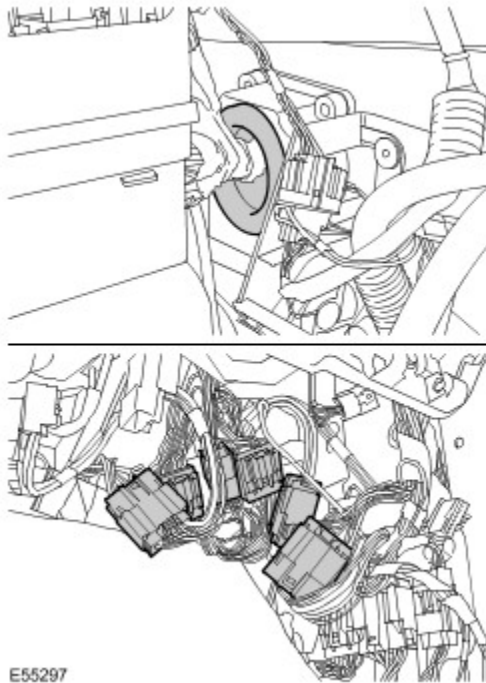
- 19 . Release the BJB from the bracket.
- Remove the bolt.



- 20 . Remove the battery ground cable.
- Remove the nut.
  - Release the additional ground cable.

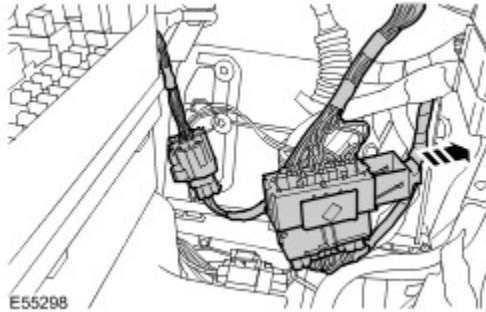


- 21 . Release the BJB wiring harness from the bulkhead.
- Disconnect the 6 electrical connectors.
  - Release the grommet.



- 22 . Raise and support the vehicle.

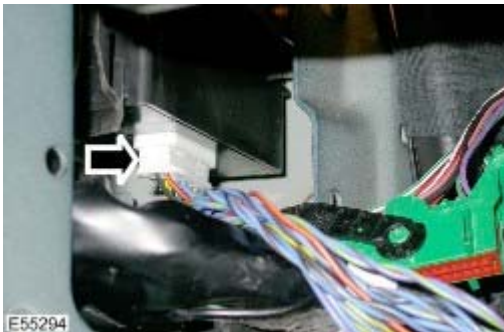
- 23 . Remove both front fender splash shields. For additional information, refer to [Fender Splash Shield \(76.10.48\)](#) (Section 501-02)
- 24 . Remove both headlamps. For additional information, refer to [Headlamp Assembly \(86.40.49\)](#) (Section 417-01)
- 25 . Passenger side: Disconnect the engine wiring harness electrical connector.
- 26 . Passenger side: Disconnect the transfer case electrical connector.



- 27 . LH side: Disconnect the washer jet hose.



- 28 . LH side: Disconnect the adaptive front lighting control module electrical connector.

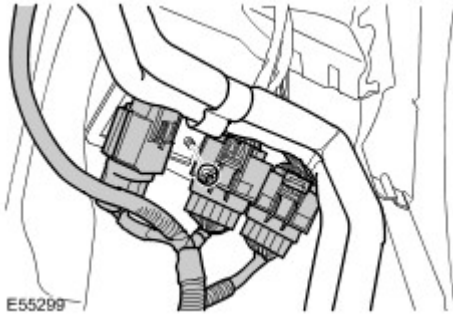


## Vehicles with auxiliary climate control

- 1 . LH side: Release the A/C lines from the body panel.
  - Remove the nut.

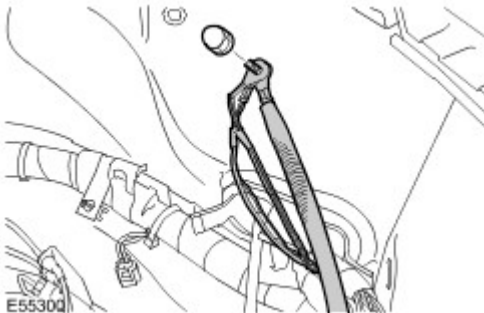
## All vehicles

1. LH side: Disconnect the 3 body panel electrical connectors.



2. LH side: Release the 3 body panel ground cables.

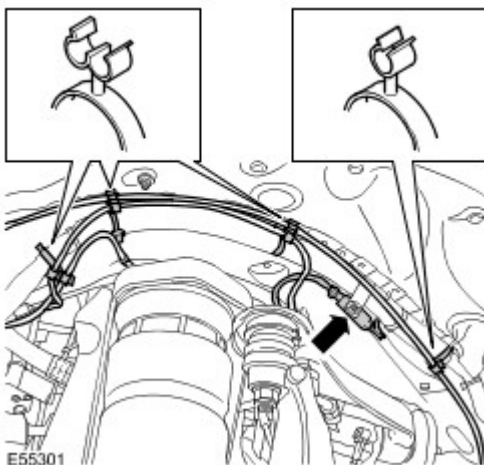
▶ Remove the nut.



3. LH side: Release the 2 air suspension pipes from the wiring harness.

▶ Release the 7 clips.

4. LH side: Disconnect the ABS electrical connector.

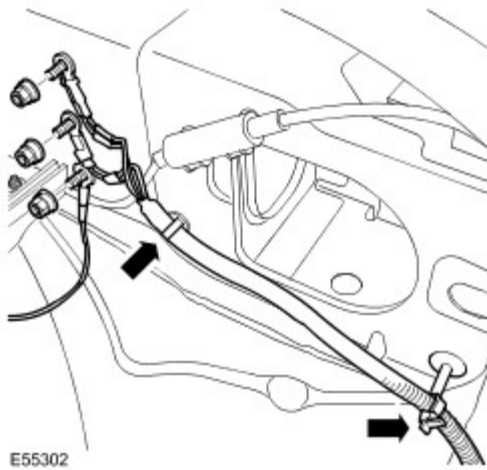


5. LH side: Release 3 engine compartment ground cables.

▶ Remove the 3 nuts.

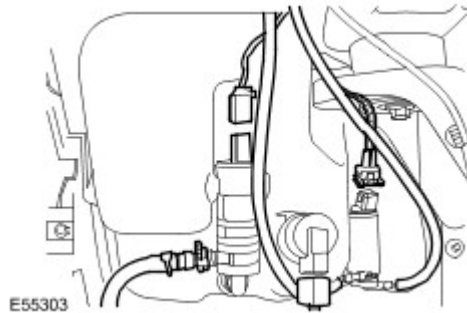
▶ Release the 2 clips.



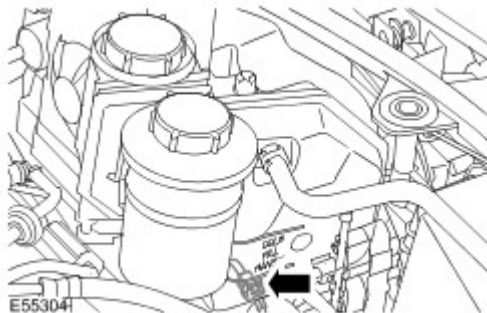


6. LH side: Release the washer reservoir wiring harness.

- Disconnect the 3 electrical connectors.
- Disconnect the 2 washer jet hoses.



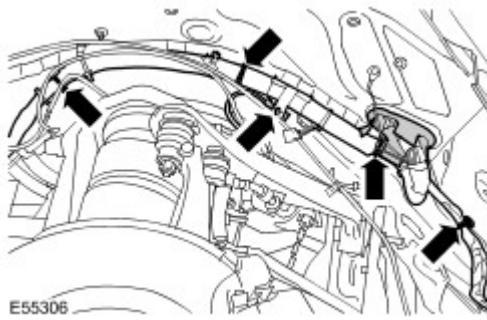
7. LH side: Disconnect the coolant expansion tank level switch electrical connector.



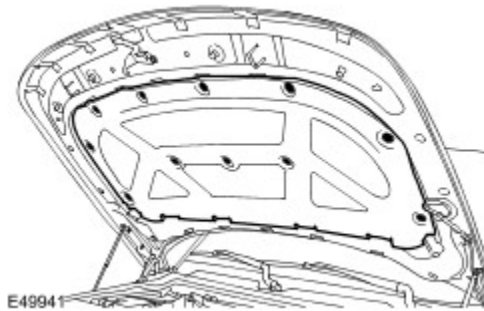
8. LH side: Disconnect the brake pad wear sensor electrical connector.

9. LH side: Release the wiring harness.

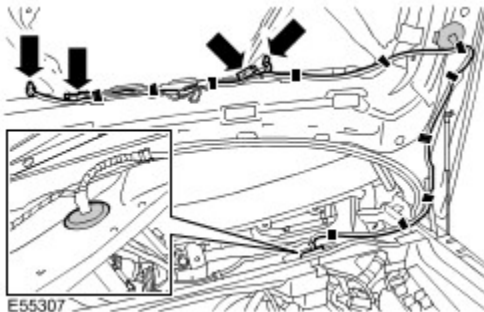
- Release the grommet.
- Release the 4 clips.



10. Remove the windshield wiper motor. For additional information, refer to [Windshield Wiper Motor \(84.15.12\)](#) (Section 501-16)
11. Remove the hood pad.  
 ➤ Remove the 11 clips.



12. Release the hood wiring harness.  
 ➤ Disconnect the 2 washer jet hoses.  
 ➤ Disconnect the 2 electrical connectors.  
 ➤ Release the 10 clips.  
 ➤ Remove the wiring harness cover.  
 ➤ Release the grommet.



13. Disconnect the brake booster vacuum pump electrical connector.





14 .

**NOTE :**

4.0L illustration shown, 4.4L is similar.

Disconnect the A/C pressure transducer electrical connector.



15 .

**NOTE :**

4.0L illustration shown, 4.4L is similar.

Disconnect the battery to engine compartment wiring harness electrical connector.



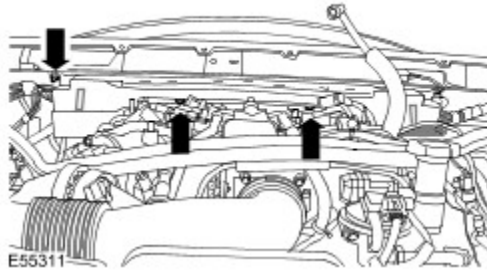
16 .

**NOTE :**

4.0L illustration shown, 4.4L is similar.

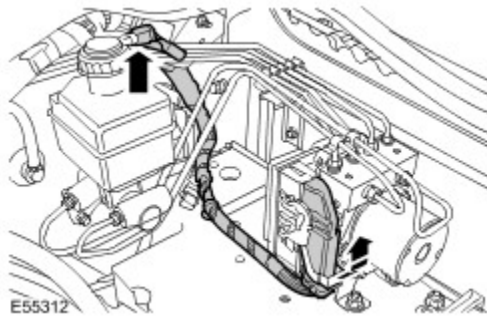
Release the wiring harness from the plenum.

- Release the 2 clips.
- Remove the 3 nuts.



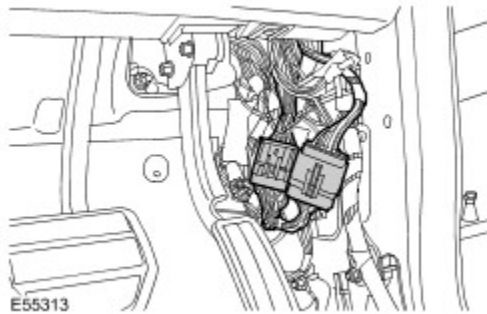
17 . Disconnect the brake fluid reservoir electrical connector.

18 . Disconnect the ABS module electrical connector.



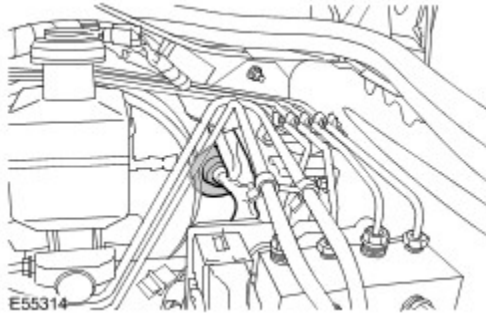
19 . Remove the air suspension control module. For additional information, refer to [Air Suspension Control Module \(60.50.04\)](#) (Section 204-05)

20 . Driver side: Disconnect 2 electrical connectors from the lower A-pillar.



21 . Driver side: Release the wiring harness from the bulkhead.

➤ Release the grommet.

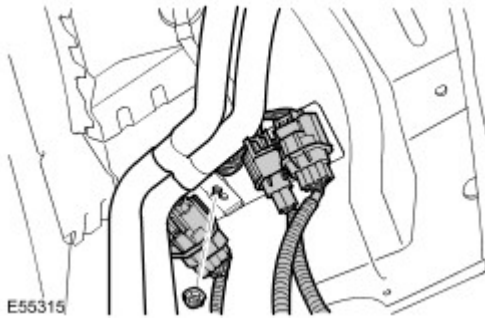


## Vehicles with auxiliary heating

1. RH side: Release the heater pipes from the body panel.  
➤ Remove the nut.

## All vehicles

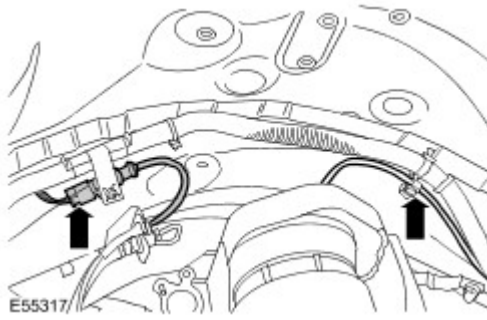
1. RH side: Disconnect the 3 body panel electrical connectors.



2. RH side: Release the 3 body panel ground cables.  
➤ Remove the nut.



3. RH side: Disconnect the ABS electrical connector.
4. RH side: Release the air suspension pipe from the wiring harness clip.



5. RH side: Release 2 engine compartment ground cables.

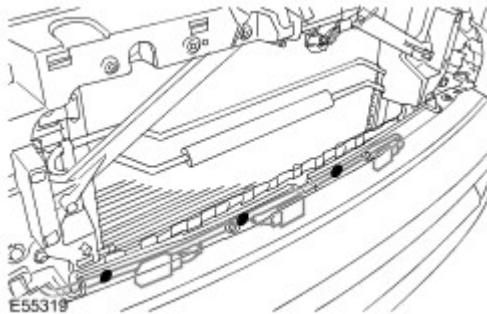
▶ Remove the 2 nuts.



6. Disconnect the ambient air temperature sensor electrical connector.

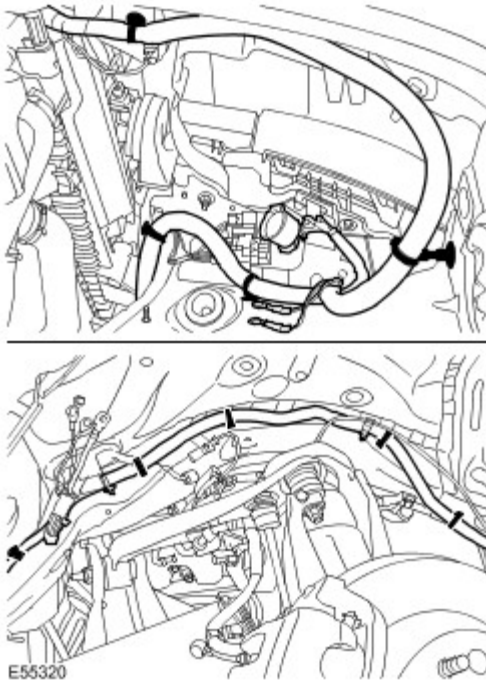
7. Disconnect both front impact severity sensor electrical connectors.

▶ Release the 3 clips.

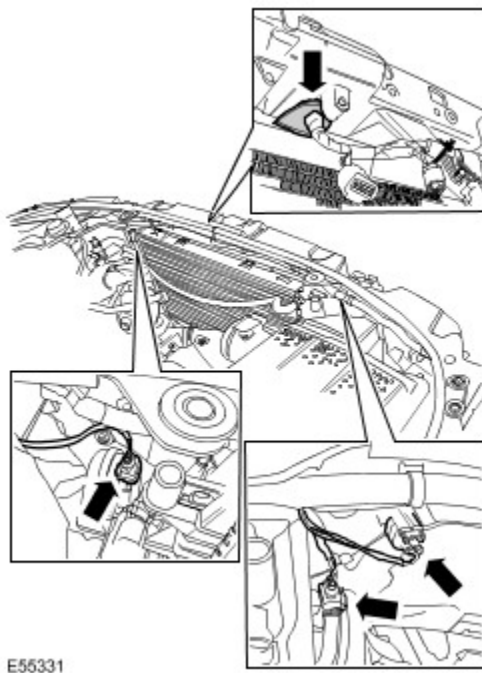


8. RH side: Release the wiring harness.

▶ Release the 9 clips.



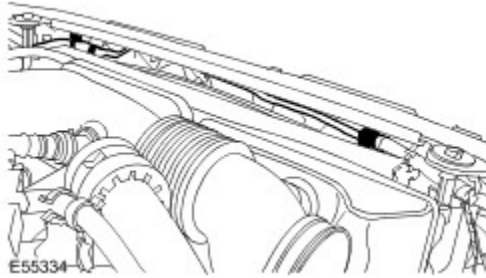
9. Disconnect the hood switch electrical connector.
10. Disconnect both horn electrical connectors.



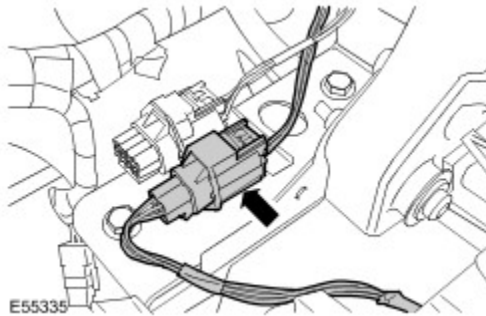
11. If installed, disconnect the speed control module electrical connector.
12. If installed, disconnect the pollution sensor electrical connector.  
▶ Release the clip.

- ▶ Release the grommet.

13. Release the hood release cable.
  - ▶ Release from the 3 clips.



14. Disconnect the front bumper wiring harness electrical connector.







15. With assistance, remove the BJB and wiring harness.

## Installation


### All vehicles

1. With assistance, install the BJB and wiring harness.
2. Connect the front bumper wiring harness electrical connector.
3. Attach the hood release cable.
  - ▶ Secure with the clips.
4. If installed, connect the pollution sensor electrical connector.
  - ▶ Install the grommet.
  - ▶ Secure the clip.
5. If installed, connect the speed control module electrical connector.
6. Connect the horn electrical connectors.




















- 7 . Connect the hood switch electrical connector.
- 8 . RH side: Secure the wiring harness.
  -  Secure the clips.
- 9 . Connect both front impact electrical connectors.
  -  Secure the clips.
- 10 . RH side: Attach the air suspension pipe.
- 11 . Connect the ambient air temperature sensor electrical connector.
- 12 . RH side: Attach the engine compartment ground cables.
  -  Tighten the nuts to 25 Nm (18 lb.ft).
- 13 . RH side: Connect the ABS electrical connector.
- 14 . RH side: Attach the body panel ground cables.
  -  Tighten the nut to 25 Nm (18 lb.ft).
- 15 . RH side: Connect the body panel electrical connectors.

### Vehicles with auxiliary heating

- 1 . RH side: Secure the heater pipes to the body panel.
  -  Tighten the nut to 10 Nm (7 lb.ft).


### All vehicles

- 1 . Driver side: Attach the wiring harness to the bulkhead.
  -  Install the grommet.
- 2 . Driver side: Connect the lower A-pillar electrical connectors.
- 3 . Install the air suspension control module. For additional information, refer to [Air Suspension Control Module \(60.50.04\)](#) (Section 204-05)
- 4 . Connect the ABS module electrical connector.
- 5 . Connect the brake fluid reservoir electrical connector.
- 6 . Attach the wiring harness to the plenum.
  -  Secure the clips.
  -  Tighten the nuts to 4 Nm (3 lb.ft).











- 7 . Connect the battery to engine compartment wiring harness electrical connector.
- 8 . Connect the A/C pressure transducer electrical connector.
- 9 . Connect the brake booster vacuum pump electrical connector.
- 10 . Attach the hood wiring harness.
  -  Install the grommet.
  -  Install the cover.
  -  Secure with the clips.
  -  Connect the electrical connectors.
  -  Connect the washer jet hoses.
- 11 . Install the hood pad.
  -  Install the clips.
- 12 . Install the windshield wiper motor. For additional information, refer to [Windshield Wiper Motor \(84.15.12\)](#) (Section 501-16)
- 13 . LH side: Attach the wiring harness.
  -  Install the grommet.
  -  Secure the clips.
- 14 . LH side: Connect the brake pad wear sensor electrical connector.
- 15 . LH side: Connect the coolant expansion tank level switch electrical connector.
- 16 . LH side: Attach the washer reservoir wiring harness.
  -  Connect the washer jet hoses.
  -  Connect the electrical connectors.
- 17 . LH side: Attach the engine compartment ground cables.
  -  Secure the clips.
  -  Tighten the nuts to 25 Nm (18 lb.ft).
- 18 . LH side: Connect the ABS electrical connector.
- 19 . LH side: Attach the air suspension pipes.
  -  Secure the clips.
- 20 . LH side: Attach the body panel ground cables.
  -  Tighten the nut to 25 Nm (18 lb.ft).

- 21 . LH side: Connect the body panel electrical connectors.

## Vehicles with auxiliary climate control

- 1 . LH side: Secure the A/C lines to the body panel.
-  Tighten the nut to 10 Nm (7 lb.ft).

## All vehicles

- 1 . LH side: Connect the adaptive front lighting control module electrical connector.
- 2 . LH side: Connect the washer jet hose.
- 3 . Passenger side: Connect the transfer case electrical connector.
- 4 . Passenger side: Connect the engine wiring harness electrical connector.
- 5 . Install the headlamps. For additional information, refer to [Headlamp Assembly \(86.40.49\)](#) (Section 417-01)
- 6 . Install the fender splash shields. For additional information, refer to [Fender Splash Shield \(76.10.48\)](#) (Section 501-02)
- 7 . Attach the BJB wiring harness to the bulkhead.
-  Connect the electrical connectors.
  -  Install the grommet.
- 8 . Install the battery ground cable.
-  Attach the additional ground cable.
  -  Tighten the nut to 25 Nm (18 lb.ft).
- 9 . Secure the BJB to the bracket.
-  Tighten the bolt to 6 Nm (4 lb.ft).
- 10 . Connect the heater motor electrical connector.
- 11 . Connect the ground cables to the lower A-pillar.
-  Tighten the nut to 10 Nm (7 lb.ft).
- 12 . Install the CJB bracket.
-  Tighten the nuts to 10 Nm (7 lb.ft).
  -  Secure the clips.
  -  Connect the electrical connectors.
  -  Tighten the bolts to 25 Nm (18 lb.ft).

- 13 . Install the CJB. For additional information, refer to [Central Junction Box \(CJB\) \(86.70.56\)](#) (Section 418-00)
- 14 . Connect the battery positive cable to the BJB.
  - Tighten the nut to 25 Nm (18 lb.ft).
- 15 . Install the BJB cover.
  - Secure the clip.
- 16 . Install the ECM.
  - Install the ECM top cover.
- 17 . Install the ECM cover.
  - Tighten the Torx screws.
  - Connect the electrical connectors.
- 18 . Install the auxiliary battery tray. For additional information, refer to [Auxiliary Battery Tray \(76.10.31\)](#) (Section 414-01)
- 19 . Install the battery tray. For additional information, refer to [Battery Tray \(76.10.30\)](#) (Section 414-01)
- 20 . Install the four-wheel drive control module. For additional information, refer to [Four-Wheel Drive \(4WD\) Control Module \(41.30.01\)](#) (Section 308-07)
- 21 . Install the air cleaner assembly. For additional information, refer to [Air Cleaner \(19.10.01\)](#) (Section 303-12)
- 22 . Install the radiator grille. For additional information, refer to [Radiator Grille \(76.55.03\)](#) (Section 501-08)
- 23 . Install the engine cover. For additional information, refer to [Engine Cover - 4.4L \(12.30.50\)](#) (Section 501-05)
- 24 . Connect the battery ground cable. For additional information, refer to [Specifications](#) (Section 414-00)
- 25 . Check the headlamp beam alignment. For additional information, refer to [Headlamp Adjustment \(86.40.17\)](#) (Section 417-01)